CLAIMS

What is claimed is:

1. A system for administering call processes for a call, the system comprising:

a signaling processor adapted to process call signaling; and

a management system adapted to transmit configuration data to the signaling processor, to manage performance data associated with the call, and to remotely control a call processing application.

2. The system of claim 1 wherein the call processing application comprises a call monitor.

3. The system of claim 1 wherein the call processing application comprising a call tap.

4. The system of claim 1 wherein the call processing application comprises a call trace.

5. The system of claim 1 wherein the call processing application comprises an active call query.

6. The system of claim 1 wherein the call processing application comprises a test call.

7. The system of claim 1 wherein the call processing application comprises a detection of a fraudulent call.

8.   The system of claim 1 wherein the call processing application comprises releasing an active call after detecting a fraudulent call.

9.   The system of claim 1 wherein the management system comprises a communication system adapted to transfer a communication between an external device and an element of the management system.

10.   The system of claim 1 wherein the management system comprises a human machine interface adapted to provide a person access to the management system for data entry.

11.   The system of claim 1 wherein the management system comprises a human machine interface adapted to provide a person access to the management system for data review.

12.   The system of claim 1 wherein the management system comprises a human machine interface adapted to provide a person access to the management system for data manipulation.

13.   The system of claim 1 wherein the management system comprises a fault management system adapted to manage at least one of a group of fault data and alarm data.

14.   The system of claim 1 wherein the management system comprises a fault management system adapted to broadcast to a support system at least one of a group of fault data and alarm data.

15. The system of claim 1 wherein the management system comprises a remote call control system adapted to administer an active call service for the call.

16. The system of claim 15 wherein the active call service comprises call control management for the call.

17. The system of claim 16 wherein the call control management comprises a call skip.

18. The system of claim 16 wherein the call control management comprises a call gap.

19. The system of claim 1 wherein the management system comprises a raw history data system adapted to store raw history data of the call.

20. The system of claim 1 wherein the management system comprises a historical system adapted to extract a subset of data from a raw history data.

21. The system of claim 1 wherein the management system comprises an accounting system adapted to collect performance data based upon a route and a connection for the call and to format the performance data for a report.

22. The system of claim 1 wherein the management system comprises a configuration management system adapted to configure the signaling processor.

23. The system of claim 1 further comprising an operations report system adapted to receive reporting data from the management system and to forward the reporting data to a distribution center.

24. The system of claim 1 further comprising an external accounting system adapted to receive accounting information from the management system.

25. The system of claim 1 further comprising a service delivery platform adapted to transmit configuration data to the management system.

26. The system of claim 1 further comprising a service delivery platform adapted to transmit call processing translation data to the management system.

27. The system of claim 1 further comprising a network management system adapted to receive fault data from the management system and to exchange the fault data with a communication device.

28. The system of claim 1 wherein the call processing application is centrally located at the management system.

29. The system of claim 1 wherein the call processing application is centrally located at the signaling processor.

30. The system of claim 1 wherein the call comprises call signaling and wherein the signaling processor comprises a signaling interface adapted to receive the call signaling and to process the call signaling to determine call information elements.

31. The system of claim 1 wherein the call comprises call signaling having call information elements and wherein the signaling processor comprises a call processor adapted to receive the call information elements and to process the call information elements to determine a connection for the call.

32. The system of claim 1 further comprising a connection system and wherein the management system further is adapted to manage performance data for the connection system

33. The system of claim 32 wherein the call comprises user communications and wherein the connection system comprises an interworking unit adapted to interwork the user communications to a connection.

34. The system of claim 32 wherein the call comprises user communications and wherein the connection system comprises an asynchronous transfer mode matrix adapted to connect the user communications over a connection.

35. A system for managing a call process for a call, the system comprising:

a communication system adapted to transfer a communication between an external device and the system;

a remote call control system adapted to remotely control a call processing application for the call; and

a fault management system adapted to manage fault data from the external device.

36. The system of claim 35 wherein the communication system is adapted to transfer the communication between the external device and the remote call control system.

37. The system of claim 35 wherein the communication system is adapted to transfer the communication between the external device and the fault management system.

38. The system of claim 35 wherein the communication comprises a control message.

39. The system of claim 35 wherein the fault management system comprises a site reporting control system adapted to control a designated management system site to which the external device transmits reporting data.

40.   The system of claim 35 wherein the fault management system comprises a site recovery database adapted to store data that identifies a designated management system site to which the external device transmits reporting data.

41.   The system of claim 35 wherein the fault management system comprises a management system control system adapted to manage data for a status for the external device.

42.   The system of claim 35 wherein the fault management system comprises a site inventory database adapted to store data identifying a status for the external device.

43.   The system of claim 35 wherein the fault management system comprises a site craft control system adapted to display data for a status of the external device

44.   The system of claim 35 wherein the fault management system comprises a regional craft control system adapted to manage data for a status of a plurality of external devices at a plurality of locations.

45.   The system of claim 35 wherein the fault management system comprises a regional inventory database adapted to store data for a status of a plurality of external devices at a plurality of locations.

46.   The system of claim 35 wherein the remote call control system comprises a call trace system adapted to trace an active call.

47. The system of claim 46 wherein the call trace system is configured to trace the active call from a centralized location.

48. The system of claim 35 wherein the remote call control system comprises a call trace system adapted to trace a completed call.

49. The system of claim 48 wherein the call trace system is configured to trace the completed call from a centralized location.

50. The system of claim 35 wherein the remote call control system comprises a call tap system adapted to tap an active call.

51. The system of claim 50 wherein the call tap system is configured to tap the call from a centralized location.

52. The system of claim 35 wherein the remote call control system comprises an active call query system adapted to locate call details for an active call.

53. The system of claim 52 wherein the active call query system is configured to query the active call from a centralized location.

54. The system of claim 35 wherein the remote call control system comprises a fraud detection system adapted to determine if the call is a fraudulent call.

55. The system of claim 54 wherein the fraud detection system is adapted to release the call if the call is active.

56. The system of claim 35 wherein the remote call control system comprises a test call system adapted to test the call.

57.   The system of claim 56 wherein the test call system is configured to test the call from a location remote from a call connection location.

58.   The system of claim 35 wherein the remote call control system comprises a skip system adapted to skip the call.

59.   The system of claim 35 wherein the remote call control system comprises a gap system adapted to gap the call.

60.   The system of claim 35 wherein the remote call control system comprises a user authorize database adapted to store security data that identifies an operator.

61.   The system of claim 35 wherein the remote call control system comprises a tap delivery database adapted to store warrant present information.

62.   The system of claim 35 wherein the remote call control system comprises an active call database adapted to store history information for the call.

63.   The system of claim 35 wherein the remote call control system comprises a connect deny database adapted to store data identifying a connection that is to be denied connecting.

64.   The system of claim 35 wherein the remote call control system comprises a traffic history database adapted to store test history data for the call.

65.   The system of claim 35 further comprising a performance monitoring system adapted to store history data of the call and to process the history data for reporting.

66. The system of claim 65 wherein the performance monitoring system comprises a hardware performance system adapted to process hardware performance data from the external device to determine an operational pattern.

67. The system of claim 65 wherein the performance monitoring system comprises a trunk group performance system adapted to process trunk group data from a trunk group to determine an operational pattern.

68. The system of claim 65 wherein the performance monitoring system comprises an asynchronous transfer mode connection system adapted to process asynchronous transfer mode connection data from an asynchronous transfer mode connection to determine an operational pattern.

69. The system of claim 65 wherein the performance monitoring system comprises a link performance system adapted to process link data from a link to determine an operational pattern.

70. The system of claim 65 wherein the performance monitoring system comprises a hardware performance database adapted to store hardware performance data.

71. The system of claim 70 wherein the hardware performance database is adapted to store the hardware performance data in a three dimensional array.

72. The system of claim 65 wherein the performance monitoring system comprises a trunk group performance database adapted to store trunk group performance data.

73. The system of claim 72 wherein the trunk group performance database is adapted to store the trunk group performance data in a three dimensional array.

74. The system of claim 65 wherein the performance monitoring system comprises an asynchronous transfer mode connection database adapted to store asynchronous transfer mode connection data.

75. The system of claim 74 wherein the asynchronous transfer mode connection database is adapted to store asynchronous transfer mode connection data in a three dimensional array.

76. The system of claim 65 wherein the performance monitoring system comprises a link performance database adapted to store link performance data.

77. The system of claim 76 wherein the link performance database is adapted to store the link performance data in a three dimensional array.

78. The system of claim 35 further comprising an accounting control system adapted to process accounting data and to develop accounting records.

79. The system of claim 78 wherein the accounting control system comprises a gap report system adapted to process gap event history data and to detect a break in a call detail record.

80. The system of claim 78 wherein the accounting control system comprises a call information block system adapted to process a call information block to

determine a number of the call information block that is converted from a circuit data block.

81. The system of claim 78 wherein the accounting control system comprises a call detail report system adapted to process a call detail report to determine a number of each call information block that is translated into the call detail report.

82. The system of claim 78 wherein the accounting control system comprises a duplicate report system adapted to determine if a duplicate report was generated by the external device.

83. The system of claim 78 wherein the accounting control system comprises a billing report system adapted to process call information to determine a record of a billing event.

84. The system of claim 78 wherein the accounting control system comprises a gap event history database adapted to store gap event data.

85. The system of claim 78 wherein the accounting control system comprises a call log database adapted to store call log data.

86. The system of claim 78 wherein the accounting control system comprises a duplicate event database adapted to store duplicate event data.

87. The system of claim 78 wherein the accounting control system comprises a billing event database adapted to store billing event data.

88. The system of claim 35 further comprising a configuration management system adapted to configure the external device.

89. The system of claim 88 wherein the configuration management system comprises a user security configuration system adapted to manage a security level for an operator.

90. The system of claim 89 wherein the user security management system is adapted to manage operator security using a simple network management protocol defined object.

91. The system of claim 89 wherein the user security management system is adapted to manage operator security using a common information management protocol defined object.

92. The system of claim 88 wherein the configuration management system comprises a site equipment configuration system adapted to determine a hardware configuration of the external device.

93. The system of claim 88 wherein the configuration management system comprises a service configuration system adapted to configure call processing tables.

94. The system of claim 88 wherein the configuration management system comprises a management system configuration equipment system adapted to determine a version of equipment for the external device.

95. The system of claim 88 wherein the configuration management system comprises a link configuration system adapted to determine a configuration of a link associated with the external device.

96. The system of claim 88 wherein the configuration management system comprises a user security database adapted to store user security configuration data.

97. The system of claim 88 wherein the configuration management system comprises a site equipment database adapted to store site equipment configuration data.

98. The system of claim 88 wherein the configuration management system comprises a management system equipment database adapted to store management system equipment version data.

99. The system of claim 88 wherein the configuration management system comprises a link database adapted to store link configuration data

100. The system of claim 35 further comprising a human machine interface adapted to provide access to the management system for at least one of a group of data manipulation, data review, and data entry.

101. The system of claim 35 wherein the call comprises call signaling and wherein the external device comprises a signaling processor adapted to receive the call signaling and to process the call signaling to determine a connection for the call.

102. The system of claim 101 wherein the signaling processor comprises a signaling interface adapted to receive the call signaling and to process the call signaling to determine a call information element.

103. The system of claim 101 wherein the call signaling comprises call information elements and wherein the signaling processor comprises a call processor adapted to receive the call information elements and to process the call information elements to determine a connection for the call.

104. The system of claim 35 wherein the external device comprises a connection system and wherein the management system further is adapted manage performance data for the connection system

105. The system of claim 104 wherein the call comprises user communications and wherein the connection system comprises an interworking unit adapted to interwork the user communications to a connection.

106. The system of claim 104 wherein the call comprises user communications and wherein the connection system comprises an asynchronous transfer mode matrix adapted to connect the user communications over a connection.

107. A system for administering a call process for a call having call signaling and user communications, the system comprising:

a signaling processor adapted to process the call signaling to select a connection for the call and to transmit a control message designating the selected connection;

a connection system adapted to receive the control message and to connect the user communications over the selected connection; and

a management system comprising :

a communication system adapted to transfer a communication between the management system and at least one of the signaling processor and the connection system;

a remote call control system adapted to remotely control a call processing application for the call; and

a fault management system adapted to manage fault data from at least one of the signaling processor and the connection system.

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